=> index bioscience
INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 09:27:57 ON 09 OCT 2008
69 FILES IN THE FILE LIST IN STNINDEX
=> ANALGESIA? OR NOCICEPTION OR PAIN OR (CHRONIC PAIN)
28374 FILE ADISCTI
2403 FILE ADISINSIGHT
11403 FILE ADISNEWS
3206 FILE AGRICOLA
125 FILE ANABSTR
385 FILE ANTE
44 FILE AQUALINE
412 FILE AQUASCI
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200625 FILE BIOSIS
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113 FILE CEABA-VTB
2937 FILE CIN
4664 FILE CONFSCI
2 FILE CROPB
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204 FILE FOMAD
108 FILE FOREGE
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31231 FILE GENBANK
2314 FILE HEALSAFE
18214 FILE IFIPAT
2902 FILE IMSDRUGNEWS
12587 FILE IMSPRODUCT
1717 FILE IMSRESEARCH
258 FILE KOSMET
21238 FILE LIFESCI
344075 FILE MEDLINE
1848 FILE NTIS
202 FILE NUTRACEUT
87 FILE OCEAN
127815 FILE PASCAL
16727 FILE PCTGEN
2223 FILE PHAR
2684 FILE PHARMAML

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9083 FILE PHIN
114839 FILE PROMT
11609 FILE PROUSDDR
45 FILE RDISCLOSURE
225735 FILE SCISEARCH
36 FILE SYNTHLINE
97153 FILE TOXCENTER
42270 FILE USGENE
100315 FILE USPATFULL
7726 FILE USPATOLD
15229 FILE USPAT2
79 FILE VETB
2277 FILE VETU
76 FILE WATER
40314 FILE WPIDS
1442 FILE WPIFV
40314 FILE WPINDEX

68 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L1 QUE ANALGESIA? OR NOCICEPTION OR PAIN OR (CHRONIC PAIN)

=> (inhibitor or downmodulator or (slow down)) (5a) ((glutamine synthetase) or (glutamate dehydrogenase) or (pyruvate carboxylase) or (glutamine cycle) or ((glial cell) (5a)(TCA cycle)))
75 FILE AGRICOLA
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30 FILE AQUASCI
49 FILE BIOENG
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42 FILE BIOTECHDS
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598 FILE CAPLUS
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25 FILE DISSABS
5 FILE DRUGB
26 FILES SEARCHED...
26 FILE DRUGU
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143 FILE ESBIOBASE
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3 FILE FROSTI
1 FILE FSTA
717 FILE GENBANK
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    162  FILE USPAT2
      2  FILE WATER
     57  FILE WPIDS
      1  FILE WPIFV
     57  FILE WPINDEX

 48 FILES HAVE ONE OR MORE ANSWERS,   69 FILES SEARCHED IN STNINDEX

L2   QUE (INHIBITOR OR DOWNMODULATOR OR (SLOW DOWN)) (5A) ((GLUTAMINE SYNTHETAS
     E) OR (GLUTAMATE DEHYDROGENASE) OR (PYRUVATE CARBOXYLASE) OR (GLUTAMIN
     E CYCLE) OR ((GLIAL CELL) (5A)(TCA CYCLE)))

=> (((peripheral) (5a) nervous system)) (5a) (inflammation site)
 16 FILES SEARCHED...
 30 FILES SEARCHED...
      1  FILE IFIPAT
 47 FILES SEARCHED...
      2  FILE USPATFULL
      2  FILE USPAT2
 66 FILES SEARCHED...

  3 FILES HAVE ONE OR MORE ANSWERS,   69 FILES SEARCHED IN STNINDEX

L3   QUE (((PERIPHERAL) (5A) NERVOUS SYSTEM)) (5A) (INFLAMMATION SITE)

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  23300  FILE ADISNEWS
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 125095  FILE CEABA-VTB
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69 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L4 QUE ADMINISTER? OR GIV? OR APPL? OR ADMINISTER OR GIVE OR APPLY

=> l2 and L3
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0 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L5 QUE L2 AND L3

=> L2 and L4
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19 FILE BIOTECHDS
12 FILES SEARCHED...
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28 FILE CABA
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17 FILES SEARCHED...
1 FILE CROPB
13 FILE CROPU
10 FILE DGENE
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2 FILE DRUGU
1 FILE EMBAL
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162 FILE USPAT2
63 FILES SEARCHED...
43 FILE WPIDS
43 FILE WPINDEX

34 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L6 QUE L2 AND L4

=> l3 and L4
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47 FILES SEARCHED...
2 FILE USPATFULL
2 FILE USPAT2
65 FILES SEARCHED...

3 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

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13 FILES SEARCHED...
3 FILE CAPLUS
25 FILES SEARCHED...
1 FILE EMBASE
1 FILE ESBIOBASE
30 FILES SEARCHED...
2 FILE GENBANK
1 FILE IFIPAT
1 FILE IMSRESEARCH
1 FILE LIFESCI
1 FILE MEDLINE
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47 FILES SEARCHED...
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2 FILE TOXCENTER
15 FILE USPATFULL
61 FILES SEARCHED...
4 FILE USPAT2
1 FILE WPIDS
1 FILE WPINDEX

15 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L8 QUE L1 AND L6
=> L7 and L8
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30 FILES SEARCHED...
42 FILES SEARCHED...
47 FILES SEARCHED...
59 FILES SEARCHED...
67 FILES SEARCHED...
0 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX
L9 QUE L7 AND L8
L1 and L7

12 FILES SEARCHED...
26 FILES SEARCHED...
35 FILES SEARCHED...
1 FILE IFIPAT
47 FILES SEARCHED...
2 FILE USPATFULL
1 FILE USPAT2
63 FILES SEARCHED...

3 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L10 QUE L1 AND L7

=> d Rank
F1 2 USPATFULL
F2 1 IFIPAT
F3 1 USPAT2
=> file f1, f2, f3
FILE 'USPATFULL' ENTERED AT 10:00:40 ON 09 OCT 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'IFIPAT' ENTERED AT 10:00:40 ON 09 OCT 2008
COPYRIGHT (C) 2008 IFI CLAIMS(R) Patent Services (IFI)

FILE 'USPAT2' ENTERED AT 10:00:40 ON 09 OCT 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> L10
L11 4 L10
=> D L11 1-4

L11 ANSWER 1 OF 4 USPATFULL on STN
AN 2007:88980 USPATFULL
TI BIOINFORMATICALLY DETECTABLE GROUP OF NOVEL VACCINIA REGULATORY GENES
AND USES THEREOF
IN Bentwich, Itzhak, 65 Kfar Daniel, Kfar Daniel, ISRAEL 73125
PA ROSETTA GENOMICS, Rehovot, ISRAEL (non-U.S. corporation)
PI US 20070077553 A1 20070405
AI US 2003-605840 A1 20031030 (10)
DT Utility
FS APPLICATION
LN.CNT 126036
INCL INCLM: 435/005.000
INCLS: 435/006.000; 536/023.720; 702/020.000
NCL NCLM: 435/005.000
NCLS: 435/006.000; 536/023.720; 702/020.000
IC IPCI C12Q0001-70 [I,A]; C12Q0001-68 [I,A]; G06F0019-00 [I,A];
G01N0033-48 [I,A]; G01N0033-50 [I,A]; C07H0021-04 [I,A];
C07H0021-00 [I,C*]
IPCR C12Q0001-70 [I,C]; C12Q0001-70 [I,A]; C07H0021-00 [I,C];
C07H0021-04 [I,A]; C12Q0001-68 [I,C]; C12Q0001-68 [I,A];
G01N0033-48 [I,C]; G01N0033-48 [I,A]; G01N0033-50 [I,C];
G01N0033-50 [I,A]; G06F0019-00 [I,C]; G06F0019-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 4 USPATFULL on STN
AN 2007:36283 USPATFULL
TI BIOINFORMATICALLY DETECTABLE GROUP OF NOVEL VACCINIA REGULATORY GENES

AND USES THEREOF
IN Bentwich, Itzhak, 65 Kfar Daniel, Kfar Daniel, ISRAEL 73125
PA ROSETTA GENOMICS, Rehovot, ISRAEL (non-U.S. corporation)
PI US 20070031823 A1 20070208
AI US 2003-604943 A1 20030828 (10)
PRAI US 2003-441241P 20030117 (60)
DT Utility
FS APPLICATION
LN.CNT 61464
INCL INCLM: 435/005.000
INCLS: 536/023.720; 702/020.000
NCL NCLM: 435/005.000
NCLS: 536/023.720; 702/020.000
IC IPCI C12Q0001-70 [I,A]; G06F0019-00 [I,A]; G01N0033-48 [I,A]; G01N0033-50 [I,A]; C07H0021-04 [I,A]; C07H0021-00 [I,C*]
IPCR C12Q0001-70 [I,C]; C12Q0001-70 [I,A]; C07H0021-00 [I,C]; C07H0021-04 [I,A]; G01N0033-48 [I,C]; G01N0033-48 [I,A]; G01N0033-50 [I,C]; G01N0033-50 [I,A]; G06F0019-00 [I,C]; G06F0019-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 3 OF 4 IFIPAT COPYRIGHT 2008 IFI on STN
AN 04693467 IFIPAT;IFIUDB;IFICDB
TI Method of alleviating chronic pain via peripheral glutaminase regulation; Administering glutaminase inhibitor to a subject suffering from chronic pain at a site of inflammation for therapy of chronic pain
IN Miller Kenneth E
PA Oklahoma, University of Board of Regents (61802)
PI US 7288246 B2 20071030
US 20030072746 A1 20030417
AI US 2002-245098 20020913
PRAI US 2001-318861P 20010913 (Provisional)
FI US 7288246 20071030
US 20030072746 20030417
DT Utility; Granted Patent - Utility, with Pre-Grant Publication
FS CHEMICAL
GRANTED
ED Entered STN: 2 Nov 2007
Last Updated on STN: 28 Apr 2008
CLMN 16
GI 22 Drawing Sheet(s), 22 Figure(s).
FIG. 1 is a diagrammatic representation of the effects of Glutamate and glutaminase on peripheral sensory nerve stimulation and exacerbation of pain responses.
FIG. 2 is a model regarding glutamate production in primary sensory neurons during chronic inflammation. Inflammatory mediators (lightning bolts) activate and sensitize peripheral afferent terminals. This leads to the release of glutamate (GLU) and other substances from peripheral terminals causing further sensitization (arrow). Inflammation stimulates keratinocytes to increase production of nerve growth factor (NGF). NGF is taken up and retrogradely transported to the neuronal cell body where it stimulates increased production of glutaminase (GT). Increased production of GT occurs from stabilization of GT mRNA via zeta-crystallin:quinone oxidoreductase (ZC). Increased amounts of GT are shipped to the periphery causing elevated glutamate production and release, further primary afferent sensitization, and exacerbation of nociceptive responses.
FIG. 3 are photomicrographs illustrating the effects of fixation on

glutaminase (GT) immunoreactivity (IR) in the rat dorsal root ganglia (DRG). DRG sections were processed simultaneously with a mouse monoclonal GT antibody (A, C) or a rabbit polyclonal GT antiserum (B, D). Some DRG's (A,B) were fixed with 4% paraformaldehyde and others (C,D) were fixed with 70% picric acid and 0.2% paraformaldehyde. In paraformaldehyde fixed tissue, intense GT-IR was restricted to small sized DRG neurons (long arrows) with both GT antibodies (A,B). Large to medium sized neurons (short arrows) were lightly stained (A,B). In picric acid-paraformaldehyde fixed tissue, small (long arrows) and medium to large sized neurons (short arrows) contained intense GT-IR with both GT antibodies (C,D). For FIG. 4 and the data utilized to produce FIGS. 5 and 6, picric acid-paraformaldehyde fixed tissue was used with the rabbit polyclonal GT antiserum.

FIG. 4 are photomicrographs illustrating Glutaminase (GT) immunoreactivity (IR) in rat L4 dorsal root ganglia (DRG) following 7 days of CFA inflammation in the right hindpaw. DRG sections were processed simultaneously with a rabbit polyclonal GT antiserum and photographed under identical conditions. (A) In control sections, GT-IR was light to moderate in all neuronal cell sizes, small (long arrows) and medium to large (short arrows). (B) Increased GT-IR intensity was observed in small (long arrows) and medium to large neurons (short arrows) in the left (contralateral) DRG following right hindpaw inflammation. This modest increase of GT-IR was observed in the left DRG at 3 & 10 days, also. (C) Elevated GT-IR in small (long arrows) and medium to large (short arrows) neurons occurred in the right (ipsilateral) DRG following CFA inflammation of right hindpaw. This pattern also was observed at 3 & 10 days following inflammation.

FIG. 5 is a graphic illustration of an image analysis of glutaminase (GT) immunoreactivity (IR) in L4 DRG neurons after 7 days of CFA inflammation in the right paw. Data are presented as intensity divided by the area of the cell. DRG neurons were categorized into three area size groups: (A) small 100 600 mu m2, (B) medium 600 1200 mu m2, (C) large >1200 mu m2. (A) Small sized neurons in the left DRG contained a significantly greater immunoreactive signal (*, $p<0.05$) than controls. Neurons in the right DRG were more intensely stained than left DRG or controls (**, $p<0.01$). (B) Medium sized neurons in the left DRG contained a significantly greater immunoreactive signal (*, $p<0.05$) than controls. Neurons in the right DRG were more intensely stained than left DRG or controls (**, $p<0.01$). (C) In the right DRG, large sized neurons were more intensely stained than the left DRG or controls (*, $p<0.05$).

FIG. 6 is a graphic illustration of GT enzyme activity in the L4 DRG at 7 days following CFA inflammation in the right hindpaw. GT activity from the right DRG (2.83+-0.30 moles/kg/hr) was elevated (*, $p<0.05$) over control values (2.20+-0.18 moles/kg/hr). The left (contralateral) L4 DRG (2.61+-0.20 moles/kg/hr) was not significantly different from controls or the right (ipsilateral) DRG.

FIG. 7 is a diagrammatic representation of the effects of inhibition of glutaminase on thermal and mechanical pain. The hindpaw responses to thermal stimulation (FIG. 7A) and pressure sensitivity (FIG. 7B) were determined for a control rat, a control rat following glutaminase inhibition with 6-diazo-5-oxo-L-norleucine (DON), a rat after CFA inflammation, and a rat after CFA inflammation and following glutaminase inhibition with DON.

FIG. 8A is a graphic representation illustrating the efficacy of DON to provide long term pain relief from pressure (mechanical stimulation). After administration of DON at day three following CFA inflammation, pain relief occurred for several days with three different doses of DON (0.1 10 mu Mole/25 mu l).

FIG. 8B is a graphic representation representing the DON dose response for pain relief from pressure stimulation. The area under the curve for each dose was determined from Day 3 to Day 5. No differences in the amount of pain relief were determined for the doses tested (0.1 10 mu Mole/25 mu l).

FIG. 9A is a graphic representation illustrating the efficacy of DON to provide long term pain relief to heat. After administration of DON at day three following CFA inflammation, pain relief occurred for several days with three different doses of DON (0.1 10 mu Mole/25 mu l).

FIG. 9B is a graphic representation illustrating the DON dose response for pain relief from thermal stimulation. The area under the curve for each dose was determined from Day 3 to Day 5. Pain relief was most efficacious at the higher doses (1 10 mu Mole/25 mu l).

FIG. 10 are graphic representations illustrating that intraplantar injection of DON into the hindpaw of normal rats does not affect pressure or thermal senstivities. DON was injected (10 mu Mole/25 mu l) on day three. Both the pressure (FIG. 10A) and thermal (FIG. 10B) sensitivities in DON-treated rats were the same as saline controls.

FIG. 11A is a graphic representation demonstrating the efficacy of N-ethylmaleimide (NEM) to provide long term pain relief to pressure (mechanical stimulation). After administration of NEM (10 mM/25 mu l) at day three following CFA inflammation, pain relief occurred for several days.

FIG. 11B is a graphic representation illustrating the efficacy of NEM to provide long term pain relief from heat. After administration of NEM (10 mM/25 mu l) at day three following CFA inflammation, pain relief occurred to near normal levels at days 4 and 6.

FIG. 12 are photomicrographs illustrating glutamate immunoreactivity in tissue sections from the hindpaw skin of a control rat (FIG. 12A), a rat after CFA inflammation (FIG. 12B), and a rat after CFA inflammation and following glutaminase inhibition with NEM (FIG. 12C).

FIG. 13A is a graphic representation demonstrating the use of two inhibitors at regulatory sites on glutaminase and their efficacy to provide long term pain relief to pressure (mechanical stimulation). After administration of Palmitoyl Coenzyme A (P-CoA, 2 mM/25 mu l) or bromothymol blue (BB, 200 mu M/25 mu l) at day three following CFA inflammation, pain relief occurred for several days.

FIG. 13B is a graphic representation illustrating the efficacy of P-CoA and BB to give long term pain relief to heat. After administration of P-CoA (2 mM/25 mu l) at day three following CFA inflammation, pain relief occurred to near normal levels from Days 4 7. After BB (200 mu M/25 mu l), pain relief occurred from Days 5 7 and at near normal levels from Days 6 7.

FIG. 14 are photomicrographs illustrating that glutaminase production in many cells is regulated by zeta-crystallin:quinone oxidoreductase (ZC). FIGS. 14A C illustrate that ZC levels are modified during chronic inflammation. ZC-immunoreactivity (IR) was examined in the rat L4 DRG during inflammation at an early and later time point (2, 6 days). ZC-IR in DRG neurons of control rats (A) shows a moderate staining of the cytoplasm of all neurons. Following inflammation for 48 hrs, ZC-IR is elevated in the cytoplasm and now appears in the nuclei of many neurons (arrows). ZC-IR remains elevated at 6 days of inflammation and occurs mainly in the cytoplasm although some nuclei (arrows) contain light ZC-IR.

FIG. 15 is a diagrammatic representation that illustrates that dicoumarol, a ZC inhibitor, disrupts increased glutaminase production during chronic

inflammation and decreases the prolonged hyperalgesia of chronic inflammation. Inflammation was initiated with complete Freund's adjuvant (CFA) at Day 0, and dicoumarol (15 mu l @ 500 mu M) or saline was administered intrathecally on days 0, 1 and 2. Thermal latencies and pressure responses (not shown) were recorded, and both the groups with inflammation (CFA) and inflammation plus dicoumarol (CFA+DC) experienced hyperalgesia and allodynia during acute inflammation (Day 1). As inflammation progressed, however, the responses of CFA+DC rats became less hyperalgesic and allodynic. At Day 3, the DRG's from the rats were collected and processed for glutaminase and ZC-IR, as shown in FIG. 16. FIG. 16 are photomicrographs illustrating that dicoumarol inhibits ZC and glutaminase production. In the DRG, ZC-IR was elevated (A) in rats with inflammation, but the ZC-IR (B) from rats treated with DC during inflammation was similar to controls. ZC-IR was found in the cytoplasm and nuclei (arrows) from rats with inflammation, whereas in rats treated with DC during inflammation, the nuclei (arrows) were not stained and ZC-IR was found primarily in the cytoplasm. In the DRG, glutaminase-IR was observed at moderate levels from controls (C), elevated following inflammation (D), and similar to controls in rats treated with DC during inflammation (E).

L11 ANSWER 4 OF 4 USPAT2 on STN
AN 2003:105835 USPAT2
TI Method of alleviating chronic pain via peripheral glutaminase regulation
IN Miller, Kenneth E., Sapulpa, OK, UNITED STATES
PA The Board of Regents of the University of Oklahoma, Norman, OK, UNITED STATES (U.S. corporation)
PI US 7288246 B2 20071030
AI US 2002-245098 20020913 (10)
PRAI US 2001-318861P 20010913 (60)
DT Utility
FS GRANTED
LN.CNT 1681
INCL INCLM: 424/094.100
INCLS: 514/439.000; 514/456.000; 514/558.000; 514/561.000
NCL NCLM: 424/094.100
NCLS: 514/439.000; 514/456.000; 514/558.000; 514/561.000
IC IPCI A61K0038-43 [ICM,7]; A61K0031-385 [ICS,7]; A61K0031-353 [ICS,7]; A61K0031-352 [ICS,7,C*]; A61K0031-198 [ICS,7]; A61K0031-195 [ICS,7]; A61K0031-20 [ICS,7]; A61K0031-185 [ICS,7,C*]
IPCI-2 A61K0038-43 [I,A]; A61K0031-385 [I,A]; A61K0031-353 [I,A]; A61K0031-352 [I,C*]; A61K0031-198 [I,A]; A61K0031-20 [I,A]; A61K0031-185 [I,C*]
IPCR A61K0038-43 [I,C]; A61K0038-43 [I,A]; A61K0031-00 [I,C*]; A61K0031-00 [I,A]; A61K0031-185 [I,C]; A61K0031-198 [I,A]; A61K0031-20 [I,A]; A61K0031-35 [I,C*]; A61K0031-35 [I,A]; A61K0031-352 [I,C]; A61K0031-353 [I,A]; A61K0031-385 [I,C]; A61K0031-385 [I,A]
EXF 424/94.1; 514/557; 514/561; 514/564; 514/570; 514/439; 514/456; 514/558
CAS INDEXING IS AVAILABLE FOR THIS PATENT.